



## Information Technology Competition (ITC) XXIV 2020 - IT Security Case

### Penetration Test Assessment for Evaluation

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#### **Background Information**

Domination Inc. is a viral marketing firm specializing in high market limited run merchandise often involving a viral element as part of the marketing campaign. To capture new attention Domination Inc. frequently changes its product line and periodically launches viral marketing campaigns that border on the outrageous. As part of the latest update Domination Inc has invested in updating their web presence to a new platform.

With the update their technology team has raised the issue of Domination Inc's PCI compliance. The new platform has yet to be tested to be up to market standards or risk losing the ability to process credit card transactions. During their first year of launch, they are expecting to have less than 20,000 card transactions per year.

First steps will be to scan the infrastructure to look for any obvious PCI issues and plan remediations to address any issues before launch before moving on to a more thorough testing of the platform for risk assessment.

#### **Problem Statement**

Domination Inc is preparing to launch their new storefront on the Internet. They have engaged a new third party site vendor and are now hearing rumblings of carelessness in the deliverables from a previous client. They have hired your team to assess the compliance readiness and security of the environment.

#### **Scope of Work**

You will be provided with an early image of the production environment for testing. You are expected to 1) Scan for PCI compliance issues, 2) perform a blind penetration test on the server environment, 3) publish findings and mitigation Suggestions in a written report and 4) present findings to Domination Inc Board. Further information is detailed below.

- 1) Scan for PCI Compliance and summarize compliance levels.**
- 2) Perform a blind penetration test against the enterprise's server environment.**

Phase 1 will include an external vulnerability assessment with detailed explanations of any findings. Any vulnerability found and exploited will be proven via screenshot or video



capture for proof of exploit. Use of additional tools for assessment, test, and breach are authorized. Hint: You can't just find an exploit and say it's bad without "Proving" it is a risk through exploitation and therefore proof that you CAN exploit the vulnerability.

### **3) Report findings and suggest mitigation measures.**

Complete your assessment / findings report. Include in it any vulnerability assessment(s). Then, complete a mitigation report detailing the steps your team took to correct your findings. Please include proof of changes to include a change log and any pertinent roll back information (I.E. include both old and new configuration files for routers, switches, firewalls, web servers etc....) Include any improvements that would run "out-of-scope" for this engagement. (For example, purchase of new equipment, software, resources etc.)

You must submit your report in an Adobe Acrobat .pdf format with highlighting and notation permissions enabled. Any simulation material in MP4 will need to be zipped and compressed.

### **4) Assemble your final presentation, report, and materials for an executive briefing.**

Your Team will be given 20 minutes to deliver your final presentation. The final 10 minutes will be used for a question and answer session to clarify any gaps. In order for the board to properly understand and evaluate your assessment, it will be very important for the entire oral presentation to be completed within the 20-minute presentation period.

### **Important Dates**

Prospective consulting teams should be aware of the following important dates. Failure to complete submissions or attendance at these dates will result in disqualification from being considered for final ranking:

- **April 8, 2020 – Reports due by 11:59 P.M. Pacific Time via Google Form**
- **April 10, 2020 - Presentation slides due by 5:00 PM PST via Google Form**
- **April 11, 2020 – Live Video Presentation and Interview to Domination Inc Board**